IN THE CLAIMS

Please cancel Claims 104, 106-109, 115, 116 and Claims 134-150, without prejudice. Please replace Claims 1, 32-48, 51, 52, 54, 103, 105, 110-112 and 129 with the corresponding claims as provided below. Please note that the attached Exhibit A provides an edited version of Claims 1, 32-48, 51, 52, 54, 103, 105, 110-112 and 129 with markings to show changes made.

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1. A method for plasma plating comprising:

positioning a substrate within a vacuum chamber;

positioning a depositant in an evaporation source within the vacuum chamber;

reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr;

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introducing a gas into the vacuum chamber at a rate to raise the pressure in the vacuum chamber to a level at or between 0.1 milliTorr and 4 milliTorr;

applying a dc signal to the substrate at a voltage amplitude at or between 1 volt and 5000 volts;

Sub B1

applying a radio frequency signal to the substrate at a power level at or between 1 watt and 50 watts; and

heating the depositant to a temperature at or above the melting point of the depositant to generate a plasma in the vacuum chamber.

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32. The method of Claim 1, further comprising:

positioning the evaporation source at a desired location relative to the substrate.

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33. The method of Claim 32, wherein positioning the evaporation source includes positioning the evaporation source a distance from the substrate.

34. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a base layer.

35. The method of Claim 34, wherein the distance is at or between 2.75 inches and 3.25 inches when the depositant in the evaporation source is to be deposited as the base layer.

36. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a transition layer.

37. The method of Claim 36, wherein the distance is at or between 2.75 inches and 3.25 inches when the depositant in the evaporation source is to be deposited as the transition layer.

38. The method of Claim 33, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a working layer.

39. The method of Claim 38, wherein the distance is at or between 2.0 inches and 2.5 inches when the depositant in the evaporation source is to be deposited as the working layer.

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~~40. The method of Claim 1, further comprising:~~

~~positioning the evaporation source at a desired location relative to the substrate;~~

~~positioning a second depositant of the same type as the depositant in a second evaporation source within the vacuum chamber; and~~

~~positioning the second evaporation source at a desired location relative to the substrate.~~

41. The method of 40, further comprising positioning the evaporation source a distance from the second evaporation source.

42. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a base layer.

43. The method of Claim 42, wherein the distance is at or between 3.0 inches and 4.0 inches when the depositant in the evaporation source is to be deposited as the base layer.

44. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a transition layer.

45. The method of Claim 44, wherein the distance is at or between 3.0 inches and 4.0 inches when the depositant in the evaporation source is to be deposited as the transition layer.

46. The method of Claim 41, wherein the distance is at or between 0.1 inches and 6 inches when the depositant in the evaporation source is to be deposited as a working layer.

47. The method of Claim 46, wherein the distance is at or between 2.5 inches and 3.0 inches when the depositant in the evaporation source is to be deposited as the working layer.

48. The method of Claim 1, further comprising:

an array of substrates and the substrate is provided as one of the array of substrates;

positioning the evaporation source at a desired position relative to outwardly facing surfaces of the array of substrates;

positioning a second depositant in a second evaporation source within the vacuum chamber; and

positioning the second evaporation source at a desired position relative to inwardly facing surfaces of the array of substrates.

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51. The method of Claim 1, further comprising:

positioning the substrate at a desired location relative to the evaporation source.

52. The method of Claim 1, further comprising:

positioning a second depositant in a second evaporation source within the vacuum chamber before reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr; and

heating the second depositant to a temperature at or above the melting point of the second depositant to generate a second plasma in the vacuum chamber after the prior plasma has been generated.

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54. The method of Claim 51, further comprising:

positioning a third depositant in a third evaporation source within the vacuum chamber before reducing the pressure in the vacuum chamber to a level at or below 4 milliTorr; and

heating the third depositant to a temperature at or above the melting point of the third depositant to generate a third plasma in the vacuum chamber after the second plasma has been generated.

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103. The method of Claim 1, wherein the evaporation source is a tungsten basket.

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105. The method of Claim 1, wherein the evaporation source is a coil.

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110. The method of Claim 1, wherein the evaporation source is a support structure.

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111. The method of Claim 1, wherein heating the depositant includes supplying a current through the evaporation source.

112. The method of Claim 111, wherein heating the depositant includes incremental staging of the current to the evaporation source to achieve a more even heat distribution in the depositant.

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129. A method for plasma plating comprising:

positioning a substrate within a vacuum chamber;

positioning a depositant in the vacuum chamber;

reducing the pressure in the vacuum chamber to a level at or between 0.1 milliTorr and 4 milliTorr;

applying a dc signal to the substrate at a voltage amplitude at or between 1 volt and 5000 volts;

applying a radio frequency signal to the substrate at a power level at or between 1 watt and 50 watts; and

heating the depositant to a temperature at or above the melting point of the depositant to generate a plasma in the vacuum chamber.